(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 7 September 2001 (07.09.2001)

PCT

(10) International Publication Number WO 01/64305 A2

(51) International Patent Classification⁷: A

A63F 9/00

(21) International Application Number: PCT/US01/06381

(22) International Filing Date: 28 February 2001 (28.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/186,268 1 March 2000 (01.03.2000) US 09/630,604 1 August 2000 (01.08.2000) US

- (71) Applicant: ODS PROPERTIES, INC. [US/US]; 12421 West Olympic Boulevard, Los Angeles, CA 90064 (US).
- (72) Inventors: GARAHI, Masood; 2802 North Torreys Peak Drive, Superior, CO 80027 (US). ZARING, Jon, C.; 1400 Lake Hearn Drive, NE, Atlanta, GA 30319 (US). BOY-LAN, Peter, C., III; 6600 South Timberlane Road, Tulsa, OK 74136 (US).

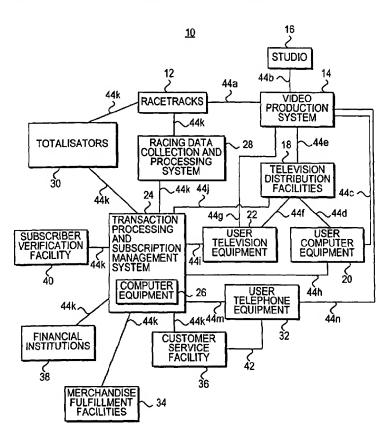
- (74) Agents: PIERRI, Margaret, A. et al.; Fish & Neave, 1251 Avenue of the Americas, New York, NY 10020 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CII, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: INTERACTIVE WAGERING SYSTEM WITH WIRELESS WAGERING CAPABILITIES



(57) Abstract: An interactive wagering application is provided that allows users to place wagers wirelessly. Users may use wireless user devices in the home to communicate with in-home user equipment such as a set-top box or personal computer. Wagers may be created using the wireless user devices and submitted to computer equipment for processing over a wireless link with the in-home user equipment and a communications network. The system may support multiple users. Users may use wireless user equipment that communicates with the communications network. The wireless user equipment may use protocols such as the wireless application protocol to allow the users to submit wagers.



WO 01/64305 A2



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERACTIVE WAGERING SYSTEM WITH WIRELESS WAGERING CAPABILITIES

This application claims the benefit of U.S. provisional application No. 60/186,268, filed March 1, 2000, which is hereby incorporated by reference herein in its entirety.

Background of the Invention

This invention relates to interactive wagering, and more particularly, to interactive wagering applications with wireless wagering capabilities.

Wagering is a popular leisure activity. For example, many racing fans wager on events such as horse, dog, and harness racing. However, it may be inconvenient to attend racing events in person. Not all racing fans have sufficient time to visit racetracks as often as they would like and some fans have difficulties in obtaining suitable transportation to the track. Off-track betting establishments are available for fans who cannot attend racing events in person, but fans must still travel to the off-track betting establishments.

As a result, systems have been developed in which fans may place off-track wagers using personal

- 2 -

computers connected to the Internet, standard telephones, or set-top boxes.

It is an object of the present invention to improve such systems by providing an interactive wagering system that has wireless wagering capabilities.

Summary of the Invention

10

15

An interactive wagering system is provided that supports wireless wagering. An interactive wagering application may be implemented on the system. The interactive wagering application may allow the users to wager on races such as horse races. A wager may be created by selecting a desired racetrack, race, wager type, wager amount, and horse or horses for the wager. Wagers may be submitted over wireless links.

Users may use wireless user devices in the home to communicate with in-home user equipment such as a set-top box or personal computer. The wireless user devices that are used to communicate with the in-home user equipment may be remote controls with displays and other portable computing devices such as handheld computers, web tablets, electronic books, portable computers, etc.

Wagers may be created using the wireless user

devices and may be provided to the in-home user
equipment over a wireless link. The in-home user
equipment may submit wagers received from the wireless
user devices to computer equipment for processing. The
wagers submitted to the computer equipment for
processing may be transmitted to the computer equipment
over a communications network (e.g., the Internet or

- 3 -

any other suitable communications paths). The computer equipment may be associated with a transaction processing and subscription management system that processes the wagers that are submitted.

The system may support multiple users. For example, one user may use a wireless user device to place a wager while another user is using another wireless device to review race results.

If desired, users may use wireless user
equipment that communicates with the communications
network. The wireless user equipment may use protocols
such as the wireless application protocol (WAP). Any
suitable platform may be used for the wireless user
equipment including handheld computers, cellular
telephones, electronic books, portable computers, etc.

The interactive wagering application may be used to place wagers on various different types of races, including dog races, horse races, harness races, etc.

Further features of the invention, its nature and various advantages will be more apparent from the accompanying drawings and the following detailed description of the preferred embodiments.

Brief Description of the Drawings

5

25 FIG. 1 is a schematic diagram of an illustrative interactive wagering system on which an interactive wagering application may be implemented in accordance with the present invention.

FIG. 2 is schematic diagram of an 30 illustrative interactive wagering system showing

- 4 -

details of the user equipment used to place wagers in accordance with the present invention.

FIG. 3 shows an illustrative racetrack selection screen that may be provided by the interactive wagering application in accordance with the present invention.

FIG. 4 shows an illustrative race selection screen that may be provided by the interactive wagering application in accordance with the present invention.

FIG. 5 shows an illustrative wager type selection screen that may be provided by the interactive wagering application in accordance with the present invention.

10

20

FIG. 6 shows an illustrative horse selection 15 screen that may be provided by the interactive wagering application in accordance with the present invention.

FIG. 7 shows an illustrative wager amount selection screen that may be provided by the interactive wagering application in accordance with the present invention.

FIG. 8 shows an illustrative wager list screen that may be provided by the interactive wagering application in accordance with the present invention.

FIG. 9 is a flow chart of illustrative steps
25 involved in allowing the user to wirelessly interact
with the interactive wagering application in accordance
with the present invention.

FIG. 10 is a flow chart of illustrative steps involved in using the interactive wagering application to support multiple wireless users in a home in accordance with the present invention.

- 5 **-**

Detailed Description of the Preferred Embodiments

An illustrative interactive wagering system
10 in accordance with the present invention is shown in
FIG. 1. Aspects of the invention apply to various
5 different types of wagering, but are described herein
primarily in the context of interactive wagering on
races (e.g., horse races) for specificity and clarity.

Races may be run at racetracks 12, which may be located at various geographic locations. Races run at the racetracks may be simulcast to television viewers. For example, simulcast videos may be provided to users with satellite receivers or to off-track betting establishments via satellite.

System 10 may be used to provide an interactive wagering service to users of various user 15 equipment. An interactive wagering application may be used to provide the wagering service. The interactive wagering application may run locally on the user equipment (e.g., on a set-top box, personal computer, cellular telephone, handheld computing device, etc.) or may run using a client-server or distributed architecture where some of the application is implemented locally on the user equipment in the form of a client process and some of the application is implemented at a remote location (e.g., on a server 25 computer or other such equipment in the system) as a server process. These arrangements are merely illustrative. Other suitable techniques for implementing the interactive wagering application may

Real-time videos from racetracks 12 may also be provided to video production system 14 for

be used if desired.

30

- 6 -

distribution to users as part of a television wagering service (i.e., a wagering-related television channel or Internet-delivered service or the like). If desired, multiple simulcast videos may be provided to video 5 production system 14 in real-time. Talent (e.g., commentators) for the television wagering service provided by the interactive wagering application may be located at studio 16. Studio 16 may provide a video feed containing commentary and the like to video production system 14. Graphic overlays for the television wagering service may be added to the service at video production system 14.

10

The television wagering service may use video production system 14 to combine selected video segments from desired racing simulcasts with the video feed from 15 studio 16 and suitable graphic overlays. If desired, video production system 14 or a separate facility may be used to reformat simulcasts from racetracks 12. example, if racetracks 12 provide simulcasts as 20 traditional analog television channels, video production system 14 (or a separate facility) may convert these simulcasts or portions of these simulcasts into digital signals (e.g., digital video signals) or into a different number of analog signals. Digital video signals may require less bandwidth than 25 analog video signals and may be appropriate for situations in which videos are to be transmitted over either high or low bandwidth pathways. Low bandwidth pathways may include telephone lines, the Internet, 30 etc.

Video production system 14 may be used to provide a television wagering service that includes

- 7 -

selected simulcast videos, video from studio 16, and graphic overlays to television distribution facilities 18 (for redistribution to user television equipment 22 and user computer equipment 20), to user computer equipment 20, and to user telephone equipment 32 (if user telephone equipment 32 has a display capable of displaying moving images). Television distribution facilities 18 may be any suitable facilities for supplying television to users, such as cable system headends, satellite systems, broadcast television 10 systems, or other suitable systems or combinations of such systems. User computer equipment 20 may be any suitable computer equipment that supports an interactive wagering application. For example, user 15 computer equipment 20 may be a personal computer. computer equipment 20 may also be based on a mainframe computer, a workstation, a networked computer or computers, a laptop computer, a notebook computer, a handheld computing device such as a personal digital 20 assistant or other small portable computer, etc.

Each of television distribution facilities 18 is typically located at a different geographic location. Users with user television equipment 22 may receive the television wagering service from an associated television distribution facility. User television equipment 22 may include, for example, a television or other suitable monitor. A television may be used to watch the television wagering service on a traditional analog television channel. User television equipment 22 may also include a digital or analog settop box connected to a television distribution facility 18 by a cable path. A digital set-top box may be used

- 8 -

to receive the television wagering service on a digital channel. If desired, user television equipment 22 may contain a satellite receiver, a WebTV box, a personal computer television (PC/TV), or hardware similar to 5 such devices into which set-top box capabilities have been integrated. A recording device such as a videocassette recorder or digital recording device (e.g., a personal video recorder or digital video recorder based on hard disk drives or the like) may be used in user television equipment 22 to store videos. The recording device may be separate from or part of the other components of user television equipment 22.

10

30

User computer equipment 20 may receive the television wagering service using a video card or other 15 video-capable equipment to receive analog or digital (e.g., moving picture experts group or MPEG) videos from a television distribution facility. User computer equipment 20 may also receive the television wagering service directly from video production system 14 using, for example, a modem link. If desired, the video for 20 the television wagering service may be compressed (e.g., using MPEG techniques). This may be useful, for example, if the path to user computer equipment 20 is a modem connection using telephone links. If video production system 14 is only used to serve user 25 computer equipment 20 without traditional analog television capabilities, video production system 14 may only need to supply such digitally-compressed video signals and not analog television signals.

Video clips of races and other simulcast information may be provided to users in the form of a television wagering service or by an interactive

- 9 -

wagering service provided by the interactive wagering application. If desired, race-related videos may be provided to the user by using video production system 14 or other suitable equipment to route appropriate 5 video clips from the simulcasts to the user in real time. Video clips may also be stored for later viewing. For example, one or more video servers located at racetracks 12, video production system 14, television distribution facilities 18, or other suitable locations may be used to store video clips. 10 The stored videos may then be played back in real time or downloaded for viewing at user television equipment 22, user computer equipment 20, or user telephone equipment 32. The video clips may contain videos of 15 races, commentary, interviews with jockeys, or any other suitable race-related information. If desired, real-time or stored videos may be provided from racetracks 12 directly to user television equipment 22, user computer equipment 20, or user telephone equipment 20 32 over the Internet or other suitable communications paths without involving video production system 14. Videos may also be provided by routing video signals through equipment located elsewhere in system 10. example, videos may be routed through transaction processing and subscription management system 24. 25

Transaction processing and subscription management system 24 may contain computer equipment 26 and other equipment for supporting system functions such as transaction processing (e.g., handling tasks related to wagers, product purchasing, adjusting the amount of funds in user accounts based on the outcomes of wagers, video clip ordering, etc.), data

30

- 10 -

distribution (e.g., for distributing racing data to the users), and subscriber management (e.g., features related to opening an account for a user, closing an account, allowing a user to add or withdraw funds from an account, changing the user's address or personal identification number, etc.). Databases within transaction processing and subscription management system 24 or associated with system 24 may be used to store racing data, wagering data and other transaction data, and subscriber data such as such as information 10 on the user's current account balance, past wagering history, individual wager limits, personal identification number, billing addresses, credit card numbers, bank account numbers, social security numbers, etc. Using such databases may allow the user to access 15 information more quickly and allows for central administration of the wagering service.

If desired, racing videos and other services may be provided using servers and other equipment

20 located at transaction processing and subscription management system 24. For example, video clips may be provided to the user on-demand. Interactive advertisements may be provided to the user. When the user selects a desired advertisement, transaction

25 processing and subscription management system 24 may provide additional information or other services related to the advertisement to the user.

Product ordering services may be implemented using computer equipment at transaction processing and subscriber management system 24 to handle orders and to assist in adjusting the appropriate account of the user accordingly. Orders may be fulfilled using merchandise

- 11 -

fulfillment facilities 34. Merchandise fulfillment facilities 34 may be operated solely to provide merchandise fulfillment or may be associated with independently-operated mail-order or on-line businesses. Similar facilities may be used to allow users to order services.

Statistical racing data such as the post times for each race, jockey names, runner names and the number of races associated with each track, handicapping information (e.g., information on past

handicapping information (e.g., information on past performances such as the number of wins and losses for the past year, etc.), and weather conditions at various tracks may be provided by racing data collection and processing system 28. Some of the data may be

15 collected from racetracks 12 and some may be provided by third party information sources such as Axcis Pocket Information Network, Inc. of Santa Clara, California or other suitable data sources.

Racing data may also be provided from

totalisators 30. Totalisators 30 are the computer
systems that may be used to handle wagers made at the
racetracks, made at off-track betting establishments,
and made using interactive wagering system 10.

Totalisators 30 generate wagering odds in real time.

Totalisators 30 generate these odds based on information on which wagers are being placed (e.g., based on information on which wagers are being placed on races at racetracks 12). Totalisators 30 are available from companies such as Amtote International, Inc. of Hunt Valley, Maryland. Totalisators 30 may be associated with individual racetracks 12 or groups of

racetracks 12. Totalisators 30 may communicate with

- 12 -

one another using a communication protocol known as the Intertote Track System Protocol (ITSP). This allows totalisators 30 to share wagering pools. Totalisators 30 may provide racing data including information on the current races at racetracks 12, the number of races associated with each racetrack, win, place, and show odds and pool totals for each horse or other runner, and exacta, trifecta, and quinella payoff predictions and pool totals for every possible combination of runners. Totalisators 30 may also provide current odds and other real-time racing data for other types of wagers. Totalisators 30 may provide the time until post time for each race.

Totalisators 30 may provide race results,

such as the order-of-finish list for at least the first
three positions and payoff values versus a standard
wager amount for win, place, and show, for each runner
in the finish list. Payoff values may be provided for
winning complex wager types such as exacta, trifecta,

quinella, pick-n (where n is the number of races
involved in the pick-n wager), and daily double. The
payoff values may be accompanied by a synopsis of the
associated finish list.

Totalisators 30 may also provide program

25 information of the type typically provided in printed racing programs. Such program information may include early odds, early scratches, race descriptions (including the distance of each race and the race surface - grass, dirt, artificial turf, etc.), allowed class ratings (based on a fixed ratio of external criteria), purse value (payoff to winning runner),

- 13 -

allowed age range of runners, and the allowed number of wins and starts for each runner.

If desired, some of the information provided to transaction processing and subscription management system 24 by totalisators 30 (such as the program information or other suitable racing data) may be provided by racing data collection and processing system 28. Similarly, some of the information provided to transaction processing and subscription management system 24 by racing data collection and processing system 28 may be provided by totalisators 30. Moreover, the foregoing examples of different suitable types of racing data are merely illustrative. Any suitable data related to racing may be provided to transaction processing and subscription management system 24 if desired.

Transaction processing and subscription management system 24 provides the racing data to users at user television equipment 22, user computer

20 equipment 20, and user telephone equipment 32 for use in following race results and developing wagers. If desired, racing data may be provided to users using paths that do not directly involve transaction processing and subscription management system 24. For example, racing data may be provided from racing data collection and processing system 28 to user television equipment 22, user computer equipment 20, or user telephone equipment 32 using the Internet or other suitable communications paths.

User telephone equipment 32 may be a conventional telephone, a cordless telephone, a cellular telephone or other portable wireless

30

- 14 -

telephone, or any other suitable telephone equipment.

Users at user television equipment 22 and user computer equipment 20 may view information on the racing data on a television or other suitable monitor. Users at user telephone equipment 32 may listen to racing data using an interactive voice system. User telephone equipment 32 may be based on cellular telephones with displays.

Users may view racing data displayed on such displays.

Users who wish to place wagers may establish an account at transaction processing and subscription 10 management system 24. An account may also be established at one of totalisators 30. The user and the interactive wagering services may have their own bank accounts at financial institutions 38. A user may set up an account electronically by using user 15 television equipment 22, user computer equipment 20, or user telephone equipment 32 to interact with the subscriber management functions of transaction processing and subscription management system 24. desired, accounts may be established with the 20 interactive wagering service with the assistance of customer service representatives at customer service facility 36. Customer service facility 36 may be at the same location as transaction processing and subscription management system 24, may be part of 25 system 24, or may be located remote from system 24. Customer service representatives at customer service facility 36 may be reached by telephone. If user telephone equipment 32 is used to access the interactive wagering service, for example, user 30 telephone equipment 32 may be used to reach the customer service representative using communications

- 15 -

path 42. If user television equipment 22 or user computer equipment 20 is being used with the service, a telephone at the same location as that equipment may be used to reach the customer service representative.

The user's identity may be checked using 5 social security number information or other identification information with the assistance of subscriber verification facility 40. The services of subscriber verification facility 40 are used to ensure that the user lives in a geographic area in which wagering is legal, that the user is of a legal age, and that the identification information (e.g., the user's social security number) matches the name provided by If the user is using a cellular telephone or the user. handheld computing device, the user's present physical location may be determined by determining which general part of the cellular telephone network is being accessed by the user or by using the cellular network or a handset-based location device such as a global positioning system (GPS) receiver in the body of the 20 cellular telephone to pinpoint the user's location. This location information may be used to verify that the user is located in a geographic area where wagering is legal.

In a typical enrollment process, the user provides personal information to the interactive wagering service and provides funds with a credit card or funds from the user's bank account. The interactive wagering service sets up an account for the user at transaction processing and subscription management system 24 and directs one of totalisators 30 to set up a new account for the user at the totalisator. The

- 16 -

totalisator is also directed to credit the user's account to reflect the amount of funds provided by the user. After the user places a wager and wins or loses, the totalisator adjusts the user's totalisator account 5 to reflect the outcome of the wager. The totalisator may periodically inform the interactive wagering service of the adjusted balance in the user's account. This may be accomplished using any suitable technique (e.g., periodically, continuously, on-request, etc.). For example, reports may be collected periodically (e.g., once a day in an end-of-day report) and provided to the interactive wagering service to reconcile the account balances at transaction processing and subscription management system 24 with the account

10

15

25

If the user makes a balance inquiry, the inquiry may be passed to the appropriate totalisator by transaction processing and subscription management system 24. If the user is charged a fee for 20 subscribing to the service, the service may debit the fee from the user's account at the transaction processing and subscription management system 24.

balances at totalisators 30.

The accounts at totalisators 30 and transaction processing and subscription management system 24 are typically maintained separately, because the business entities that operate totalisators 30 and transaction processing and subscription management system 24 are independent. If desired, financial functions related to opening and maintaining user accounts and the like may be handled using computer equipment at another location such as one of financial institutions 38 or other location remote from

- 17 -

totalisators 30 and system 24. Such financial functions may also be implemented primarily at a totalisator 30 or primarily at the transaction processing and subscription management system 24 if desired.

Users at user television equipment 22, user computer equipment 20, and user telephone equipment 32 may place wagers by providing wagering data and otherwise interacting with transaction processing and subscription management system 24. The interactive wagering service may provide a user at user television equipment 22, user computer equipment 20, or user telephone equipment 32 that has display capabilities with screens containing various racing data. For example, the user may be presented with screens that allow the user to view the current odds for horses in an upcoming race at a given track.

10

20

25

The service may provide the user with interactive screens containing menus and selectable options that allow the user to specify the type of wager in which the user is interested and the desired wager amount. With a set-top box arrangement, for example, the user may use a remote control or wireless keyboard to navigate the various menus and selectable options. With a personal computer, the user may use a keyboard, mouse, trackball, touch pad, or other suitable input or pointing device. With a cellular telephone with a display, the user may use buttons on the telephone. When the user has made appropriate selections to define a desired wager, the user television equipment, user computer equipment, or user telephone equipment may transmit wagering data for the

- 18 -

wager to transaction processing and subscription management system 24.

Users with telephones may also interact with the service using an interactive voice response system

located at transaction processing and subscription management system 24. The interactive voice response system may present menu options to the user in the form of audio prompts (e.g., "press 1 to select a \$2 wager amount," etc.). The user may interact with the service be pressing the corresponding buttons on a touch tone telephone. User telephone equipment 32 that is based on cellular telephones allows the user to interact with the wagering service in this way. User telephone equipment 32 that is based on cellular telephones with messaging and display capabilities also allows the user to interact visually with the interactive wagering service.

The components of system 10 may be interconnected using various communications paths 44. Communications paths 44 may include satellite paths, 20 coaxial cable paths, fiber-optic paths, twisted pair paths, other wire or cable-based links, wireless paths through free space, or any other suitable paths or combination of such paths. Communications over paths 44 may involve analog transmissions, digital 25 transmissions, wireless transmissions, microwave transmissions, radio-frequency transmissions, optical transmissions, audio transmissions, or any other suitable type of transmissions or combination of such 30 transmissions. Communications may involve Internet transmissions, private network transmissions, packetbased transmissions, television channel transmissions,

- 19 -

transmissions in the vertical blanking interval of a television channel or on a television sideband, MPEG transmissions, etc. Communications may involve wireless pager or other messaging transmissions.

- 5 Communications paths 44 may include cable connected to cable modems, digital subscriber lines, integrated services digital network (ISDN) lines, or any other suitable paths. Examples of suitable communications paths are described below. Those examples are,
- 10 however, merely illustrative. Any of the communications path arrangements described above or other suitable arrangements may be used if desired.

15

20

Communications paths that carry video and particularly uncompressed analog video or lightly-compressed or full-screen digital video generally use more bandwidth than communications paths that carry only data or that carry partial-screen digital video. For example, if it is desired to transmit high-quality simulcasts of races from racetracks 12 to video production system 14, analog or digital videos may be transmitted from racetracks 12 to video production system 14 over path 44a using satellite links. Video

- may be transmitted from studio 16 to video production system 14 over path 44b using a satellite link or a
 25 high-speed terrestrial path such as a fiber-optic path. Studio 16 may also be located at the same site as video production system 14, thereby avoiding the need for a long-haul transmission path. Videos may be transmitted from video production system 14 to user computer
- 30 equipment 20 over path 14c using a modem link (using, for example, a digital subscriber line, a telephone

- 20 -

network link, a wireless link etc.) The modem link may be made over a private network.

A user with a cable modem may connect a personal computer or other such user computer equipment 20 to an associated cable system headend using path (The headend in such an arrangement would be one of the television distribution facilities 18 shown in FIG. 1.) The user may then receive videos from the headend via cable modem. Videos may be provided to the headend over path 44e using a network link, fiber optic links, cable links, microwave links, satellite links, etc. A user with a set-top box or similar device (shown in FIG. 1 as user television equipment 22) may also receive videos from a cable system headend using a 15 cable modem or other such communications device over path 44f. In addition, a user with user television equipment may receive videos over the Internet or a private network using a telephone-based modem or other such communications device using path 44g. In a system with distributed processing, interactive wagering services may be provided using a television distribution facility 18 that includes equipment that supplements or replaces at least some of the equipment at transaction processing and subscription management 25 system 24.

If desired, user television equipment 22 or user computer equipment 20 may receive analog or digital videos from an associated television distribution facility over the communications paths normally used to distribute television programming (e.g., paths 44f and 44d). For example, videos may be received as part of a dedicated interactive wagering

- 21 -

service television channel. If videos are provided as digital signals (e.g., MPEG signals), 10 or more digital videos may be carried on a single analog channel (or one digital video may be carried on one-tenth of the bandwidth of an analog channel). If the videos are not full-screen videos, even more videos may be simultaneously provided without a loss of image quality.

Racing videos may be provided to user

10 telephone equipment 32 over a partially-wireless
telephone Internet link or other telephone link using
path 44n.

If desired, racing data may accompany the racing videos along any of these paths. Moreover, racing videos may be provided by routing them directly 15 from racetracks 12 to user television equipment 22, user computer equipment 20 (e.g., over the Internet or a private network, etc.), or user telephone equipment Racing videos may also be provided by routing them 20 through transaction processing and subscription management system 24. If a cellular telephone or portable computing device has sufficient display capabilities to support moving images, racing videos may be displayed. Such videos may be provided using any suitable path, such as a direct path from 25 racetracks 12, a path through video production system 14 or other suitable video processing equipment, through a hub such as transaction processing and subscription management system 24, etc. Racing videos 30 may be provided in real time or may be recorded for later distribution. Videos that are not provided in real-time may be downloaded by user television

- 22 -

equipment 22, user computer equipment 20, a cellular telephone, or other suitable user equipment at a lower data rate than would otherwise be required and may be downloaded in the background if desired. Such videos may also be provided to the user at real-time video rates for direct viewing by the user.

Racing data and other information related to the interactive wagering service may be provided to users over paths connected to transaction processing and subscription management system 24. For example, 10 racing data and other data for the service may be provided to user computer equipment 20 over path 44h using a modem link. Path 44h may be a private network path or an Internet path. Path 44h may use telephone lines, digital subscriber lines, ISDN lines, wireless 15 data paths, or any other suitable type of communications links. User television equipment 22 may receive data for the wagering service over communications path 44i, which may be a telephone line, digital subscriber line, ISDN line, or other suitable 20 type of communications path and which may use a private network path or an Internet path, etc.

Data for the wagering service may be provided to users of the interactive wagering application via communications path 44j and paths 44f and 44d.

Communications path 44j may be provided over a private network, using the public telephone network, using satellite links, or any other suitable type of links. Data from paths such as path 44j may be routed to paths such as paths 44f and 44d directly by associated television distribution facilities 18, or may be buffered at television distribution facilities 18 if

- 23 -

desired. Paths 44f and 44d may include coaxial cable and use of paths 44f and 44d may involve the use of cable modems or the like. If data is provided over path 44j and path 44f or path 44d using an Internet 5 protocol, a web browser or similar software running on user television equipment 22 or user computer equipment 20 may be used to access the data. Such software may be integrated into the interactive wagering application or may be used separately. Software may also be used to view videos and may be used on other platforms (e.g., advanced cellular telephones) if desired.

The communications paths 44k that are used to connect various other components of the system typically do not carry high-bandwidth video signals.

15 Accordingly, paths 44k may be telephone-like paths that are part of the Internet or a private network. paths and various other paths 44 may be dedicated connections for security, reliability, and economy.

10

User telephone equipment 32 may receive 20 information for the wagering service via path 44m. Ιf user telephone equipment 32 is a standard (noncellular) telephone, such information may be in the form of audio prompts ("press 1 to place a wager") and audio racing data ("the current win odds for horse 2 are 5-1"). Transaction data processing and subscription management system 24 may contain interactive voice response equipment that provides such information to the user and that responds to touch-tone signals from the user when the user responds to prompts by pressing buttons on the user's telephone.

If user telephone equipment 32 is a cellular telephone, racing data and other information for the

- 24 -

interactive wagering service may be provided to the user by using a cellular wireless connection as part of path 44m. Users with cellular telephones may be provided with audio prompts using an interactive voice response system located at transaction processing and subscription management system 24 to which the users may respond by pressing cellular telephone buttons to generate touch-tone signals.

Racing data and other information for the interactive wagering service may be provided to 10 cellular telephones in the form of alphanumeric messages. Such messages may be transmitted to the user by using paging or other alphanumeric messaging formats or any other suitable data communications scheme. desired, data may be provided to the cellular telephones over the voice channel and decoded by the cellular telephone using modem circuitry or other suitable circuitry. Data may also be provided using any other suitable cellular or wireless path. Regardless of the way in which racing data and other 20 information for the interactive wagering service are provided to the cellular telephone, such information may be provided to the user by displaying it on the cellular telephone display screen or by presenting it in audible form through the speaker of the cellular 25

Racing data and other interactive wagering service information for the users may be provided in one or more continuous data streams, may be provided periodically (e.g., once per hour or once per day), or may be provided using a client-server arrangement in which data is requested by a client processor (e.g.,

telephone.

- 25 -

user television equipment 22, user computer equipment 20, user telephone equipment 32, or any other such equipment) from a server (e.g., a server implemented using computer equipment 26 at transaction processing and subscription management system 24 or computer equipment at another suitable location). Videos may also be provided using any of these techniques.

A return communications path between the user and the interactive wagering service may be used to allow the user to place wagers and otherwise interact 10 with the interactive wagering service. For example, a user with a standard telephone or a cellular telephone may interact with the service by pressing touch-tone keys on the telephone in response to audio prompts 15 provided by an interactive voice response system at transaction processing and subscription management system 24. If desired, users may call customer service representatives at customer service facility 36 and place wagers with manual assistance. The user of a cellular telephone may interact with the wagering 20 service by selecting menu options and otherwise interacting with information displayed on the cellular telephone. When a selection is made, software implemented on the telephone may be used to assist the 25 user in transmitting appropriate data (e.g., wagering data) to the wagering service. Such data may be transmitted using any suitable technique. For example, data may be transmitted using a wireless data link that is separate from the cellular voice channels. Data may also be transmitted over the voice channel (e.g., using 30 a modem built into the cellular telephone, by automatically generating touch-tone signals that may be

- 26 -

recognized by the interactive voice response system at transaction processing and subscription management system 24, or using any other suitable arrangement).

These approaches may be used even if the user receives racing data and other information for the service using a platform other than a telephone-based platform.

Users with user television equipment 22 may interact with the service by sending data (e.g., wager data) to transaction processing and subscription management system 24 using path 44i or using paths 44f and 44j. Users with user computer equipment 20 may send data (e.g., wager data) to transaction processing and subscription management system 24 via path 44h or paths 44d and 44j. Users at any user equipment may send data for the service to locations other than transaction processing and subscription management system 24. For example, the user may provide information directly to customer service facility 36, etc.

10

If desired, the user may send data to the service at transaction processing and subscription management system 24 using different paths than those used to receive data from transaction processing and subscription management system 24. For example, racing data may be received at user television equipment 22 via paths 44j and 44f, whereas data may be sent by the user from user television equipment 22 to transaction processing and subscription management system 24 using path 44i, etc. Moreover, the paths used to receive certain video information may be different from those used to receive racing data. For example, user television equipment 22 may receive racing videos using

- 27 -

path 44f, but may receive racing data using path 44i. These examples are merely illustrative. Any suitable combination of paths may be used to distribute racing data and other information for the interactive wagering service, any suitable combination of paths may be used to receive videos, and any suitable combination of paths may be used to send data to the wagering service.

If desired, the user may interact with the wagering service using more than one platform. For example, the user may place a wager using a cellular telephone while the user is driving home. When the user arrives home, the user may determine the outcome of the wager by watching a video of the race on user television equipment. Later in the day, the user may check the user's account balance using a personal computer. This is merely an illustrative example. The various wagering platforms may be used in any suitable combination.

10

30

Although system 10 has been described in the context of a system that supports multiple wagering platforms, system 10 may support fewer platforms if desired.

The wireless wagering features of the present invention are described herein primarily in the context of an interactive wagering application that is implemented using in-home user equipment such as user computer equipment 20 or user television equipment 22 that includes at least one wireless user device (e.g., a remote control, handheld computer, electronic book, web tablet, portable computer, etc.) or that is implemented using wireless user equipment (e.g., a handheld computer, cellular telephone, electronic book,

- 28 -

portable computer, etc.). This is only illustrative. An interactive wagering application implemented on any suitable platform may be used to provide wireless wagering features if desired.

The interactive wagering application may be 5 implemented using application software that runs primarily on user television equipment, user computer equipment, user telephone equipment, or other local platform, or using a remote server or other computer that is accessed from the local platform. Arrangements 10 in which interactive wagering services are implemented using software on remote computers that is accessed ondemand from local platforms may be referred to as client-server arrangements. Such client-server 15 arrangements may be used to allow client processes on set-top boxes or other platforms to access server processes running on servers located at cable system headends or other television distribution facilities 18 (FIG. 1). Regardless of the type of system 20 architecture or platform used, the software that supports the interactive wagering service features described herein may be referred to as an interactive wagering application.

As shown in FIG. 2, a communications network

such as communications network 140 may be used to
interconnect user equipment 142 and wireless user
equipment 144 with transaction processing and
subscription management system 24, television
distribution facilities 18, and video production system

14. Communications paths 44p and wireless
communications path 44q may be used to connect user
equipment 142, wireless user equipment 144, transaction

- 29 -

processing and subscription management system 24, television distribution facilities 18, and video production system 14 to communications network 140. Wireless communications path 44s may be used to connect 5 wireless user equipment 144 to communications equipment 141 at track 143. Communications equipment 141 may be any suitable communications and computing arrangement such as a computer with associated communications circuitry. Communications equipment 141 may include wireless communications equipment suitable for communicating with wireless user equipment 144 over a wireless link. The wireless communications equipment may support communications at 900 MHZ, 2.4 GHz, any suitable frequency in the range used to support cordless telephone operations, any suitable Bluetooth frequency, or any other suitable frequency for wireless communications. Communications equipment 141 may be connected to communications network 140 by communications path 44t. Communications equipment 141 may be part of a local network at track 143 that 20 supplies access to wagering functions and information on wagering or that may serve as a wireless access node for communications network 140 (which allows the user to connect to transaction processing and subscription 25 management system 24). The user may place wagers with transaction processing and subscription management system 24 by transmitting electronic wagers to transaction processing and subscription management system 24 via path 44s, communications equipment 141, 30 path 44t, and communications network 140. Wagering information from transaction processing and

- 30 -

subscription management system 24 may be received through this path.

Communications network 140 may be any suitable communications network. For example, communications network 140 may use any of the communications paths 44 of FIG. 1. Communications paths 44p and 44t may also use any of the communications paths 44 of FIG. 1. Communications paths 44g and 44s may be, for example, a cellular wireless path, any suitable wireless path to a wireless 10 network station or other suitable base station such as an FM wireless path, a 900 MHZ path, a 2.4 GHz wireless path, any suitable path of the type used to support cordless telephone communications, any Bluetooth 15 communications path, a cellular telephone wireless path to a base station in communications network 140, a satellite path, etc. Communications paths 44q and 44s may use any of the wireless communications paths 44 of FIG. 1. The communications paths 44p, 44q, 44s, and 20 44t and communications network 140 may use wired paths such as fiber optic paths, cable paths, twisted pair paths or other suitable wired paths or wireless paths such as radio-frequency wireless paths or infrared wireless paths, combinations of such paths or any other suitable paths. Any suitable communications protocols may be used to support communications over communications network 140 and paths 44p, 44q, 44s, and 44t. For example, communications between wireless user equipment 144 and network 140 over communications path 30 44g or between wireless user equipment 144 and communications equipment 141 may use the wireless application protocol (WAP).

PCT/US01/06381 WO 01/64305

- 31 -

Wireless user equipment 144 may be user computer equipment 20 (FIG. 1), user television equipment 22 (FIG. 1), or any other suitable user equipment suitable for wireless communications. For 5 example, wireless user equipment 144 may be a handheld computer that communicates with network 140 over a radio-frequency wireless link with a base station in network 140. Wireless user equipment 144 may also be a cellular telephone with a display and processing capabilities, a portable computer, an electronic book, or any other suitable computing device with wireless communications capabilities.

10

15

20

25

A user of an electronic book or other wireless user equipment may, for example, connect to a local network at track 143 to view information on races at that track or to otherwise interact with features and services provided by communications equipment 141 and to connect to the interactive wagering service via communications equipment 141, communications path 44t, communications network 140, communications path 44p, and transaction processing and subscription management system 24.

A suitable electronic book may the SoftBook® Reader of Softbook press, Redwood City, California or hardware based on a platform such as the SoftBook Reader platform. The electronic book may have a cover formed out of leather or plastic or any other suitable protective material. The electronic book may have a display such as a back-lit monochrome or color liquid The display may be a touch-30 crystal display (LCD). screen, so that a user may select on-screen options that are displayed on the display by touching them.

- 32 -

The size of the display on the electronic book may be selected to be comparable to that of a sheet of paper (e.g., roughly 8½ inches by 11 inches). This is merely illustrative. Any suitable size may be used for display of the electronic book if desired. The electronic book may have controls such as page navigation buttons that allow the user to page forward and backward through material displayed on the display.

Wireless user equipment 142 may include inhome user equipment 146 and wireless user device 148. 10 In-home equipment 146 and wireless user device 148 may communicate over wireless communications path 44r. Communications path 44r may be any suitable wireless communications path such as a radio-frequency or infrared wireless path. Examples of suitable radio-15 frequency paths are paths based on the Bluetooth protocol, paths that support communications at 900 MHZ, 2.4 GHz, any suitable frequency in the range used to support cordless telephone operations, any suitable 20 Bluetooth frequency, or any other suitable frequency for wireless communications.

In-home user equipment 142 may be any suitable in-home computing equipment, such as a television set-top box, a personal computer, etc.

25 Wireless user device 148 may be any suitable wireless user device such as a remote control with a display (a "display remote") or other portable computing device such as a handheld computer, an electronic book, a portable computer (e.g., a portable computing device that uses either a wired or wireless keyboard or a computing device such as a pen-based computer tablet or the like), a web tablet, etc.

PCT/US01/06381 WO 01/64305

- 33 -

Wireless user device 148 may be used as a controller or data input device for in-home user equipment 146. For example, a remote control may be used to input data that is processed by a set-top box 5 before being transmitted to transaction processing and subscription management system 24. Wireless user device 148 may also be used as a display device. For example, on-screen options may be displayed on the display of a remote control or on the display of an electronic book or other device. Audio may also be presented though wireless user device 148.

10

In-home user equipment 146 may act as a dumb retransmission device for wireless user device 148 (e.g., by using an internal modem to handle information provided to and received from communications network 140) or may act as a cache or proxy server in cooperation with a server at transaction processing and subscription management system 24 (e.g., a server on computer equipment 26). These are merely illustrative examples. In-home user equipment 146 and wireless user 20 device 148 may be used in any suitable configuration, provided that the configuration allows the user to use the interactive wagering application to access and display information (e.g., handicapping information, race results, odds, and other racing data) and to 25 interact with various options (e.g., on-screen options that are displayed on the display of wireless user device 148 for creating and placing wagers). Advertisements and any other suitable content may be provided to wireless user device 148 from in-home user equipment 146. Such content may be provided to in-home

- 34 **-**

user equipment 146 from a server or other source connected to communications network 140.

10

Any suitable technique may be used to launch or access the interactive wagering application. For example, the user may be presented with on-screen options on the display of wireless user device 148 or wireless user equipment 144 that the user may select to start the application. If desired, the application may be accessed automatically whenever certain criteria are satisfied (e.g., whenever the user tunes to a particular television channel or accesses a particular web site, etc.).

Illustrative screens that may be displayed on the display of wireless user device 148 or wireless user equipment 144 by the interactive wagering 15 application are shown in FIGS. 3-8. In the illustrative examples of FIGS. 3-8, options are displayed using screens that are particularly suitable for relatively large displays, such as displays of the type found on electronic books, portable computers, web tablets or the like that are viewed at relatively short distances. In arrangements in which the interactive wagering application displays screens on televisions or other such monitors that are viewed at a distance (e.g., television-based arrangements), the on-screen 25 options and other content generated by the interactive wagering application may be made larger. arrangements involving small screens that are viewed up close (e.g., handheld computers or cellular telephones with displays), scrolling may be used to access portions of screens that are too large to fit on the small display all at once. If desired, the options and

- 35 -

content of screens such as screens 3-8 may be presented using additional menu screens (e.g., additional layers of menus or the like).

With platforms that have buttons, options may 5 be selected by highlighting the options using navigation keys such as arrow keys and by pressing an appropriate selection key such as an OK or enter or select key. With platforms that use touch screens, options may be selected by touch. In cellular telephone arrangements and handheld computer 10 arrangements, options and information may be displayed using smaller screens than are typically available on personal computer or set-top box arrangements. accommodate the smaller screen size, options that might 15 otherwise be presented on a single screen may be displayed using multiple screens or layered menus. Options may be selected by highlighting them using navigation keys and pressing an appropriate select button on the cellular telephone or handheld computing device or by using a pen-based interface or the like. If desired, the information and options provided by the interactive wagering application may be provided using audio clips and audio prompts to accommodate telephonebased wagering from touch-tone telephones without display screens. 25

An illustrative display screen 46 that may be provided by the interactive wagering application is shown in FIG. 3. Screen 46 may include a race ticket region 48 in which information about the wager that the user is currently building may be displayed. A list 50 of tracks may be provided from which the user may select a desired racetrack for which to place a wager.

- 36 -

For example, the user may click on a track name of interest by using a mouse, trackball, or other pointing device to move pointer 52 on top of the desired name in list 50.

Track status information 54 may be provided for each track. For example, information may be provided on whether the track is open or closed.

5

If desired, information 56 may be provided that indicates the current race at each track. Post time information 58 may be provided for races that are still open.

After the user of the interactive wagering application selects a desired racetrack from screen 46, the application may display a race selection screen such as screen 60 of FIG. 4. As shown in FIG. 4, screen 60 may contain track information 62 in the race ticket region 48. Track information 62 shows the user which racetrack was selected using screen 46.

A list 64 of available races at the selected track may be displayed. The user may select a desired race from list 64 by clicking on the name for the race. The user may view race results for races that have been run by clicking on an associated race results option.

Race status information 66 may indicate which 25 races are open and which races are closed.

Post time information 68 may indicate the post times for each race.

The user may return to track selection screen 46 of FIG. 3 to select a different track by selecting 30 track option 70.

On screen 60 and the other screens of FIGS. 3-8, tabs 72 may be used to indicate the user's present

- 37 -

location within the interactive wagering application.

The user may select from proBet (a streamlined wagering interface for experienced users), easyBet (a more full-featured interface for novice users), Handicap (features that allow the user to obtain handicapping information), track info (information on various racetracks), player info (features that support wagering by multiple users), setup (for setting up various settings of the interactive wagering application), and help (context-sensitive help information).

10

A bar 74 or other suitable region may be displayed below tabs 72 (or in any other suitable location) that indicates the user's location within the wager creation process. The user's current location (e.g., the race selection menu of screen 60) may be indicated by coloring the appropriate word (e.g., the word "race" in the example of FIG. 4).

After the user has selected a desired race at the selected racetrack, the user may be presented with a screen such as screen 76 of FIG. 5. Screen 76 may allow the user to select a wager type for the wager. On screen 76, race ticket region 48 may be updated to include information 78 on which race was selected on screen 60. In the example of FIG. 5, the information 78 reflects that the selected race is race No. 7.

If desired, a default wager type may be highlighted on screen 76. In the example of FIG. 5, option 80 for a win wager has been highlighted. If the user wishes to place a win wager, the user may proceed to the horse selection menu by selecting horse option 82. If the user would like to place a different type

- 38 -

of wager (e.g., a place wager, a show wager, etc.), the user may select one of the other wager type options 84 by clicking on that option. Information 86 may be provided in race ticket region 48 that indicates the highlighted wager type.

The user may return to race selection screen 60 by selecting option 88.

After the has selected a desired wager type (e.g., a win wager in the example of FIG. 5), the interactive wagering application may present a horse selection screen to the user such as horse selection screen 90 of FIG. 6. Information 86 may be included in race ticket region 48 to indicate which wager type has been selected.

15 If desired, the user may select one or more horses for the wager by clicking on the appropriate horse options 92.

20

25

In the example of FIG. 6, the user may return to wager type selection screen 76 of FIG. 5 by selecting option 98. The user may advance towards completing the wager by selecting amount option 100.

If the user selects amount option 100 of FIG. 6, the user may be presented with a screen such as amount selection screen 102 of FIG. 7. In amount selection screen 102, race ticket region 48 may include information 104 on the selected horse. In the example of FIG. 7, information 104 reflects that the user has selected horse number 2 for a win wager.

Race ticket region 48 in FIG. 7 also contains information 106 that reflects the default highlighted wager amount. Information 107 reflects the total cost of the wager, which may differ from the cost

- 39 -

represented by information 106 when, for example, multiple horses have been selected for a wager that requires only one horse.

In the example of FIG. 7, \$2 option 108 is 5 highlighted by default and information 106 reflects this amount. Because this feature may be used by novices, it may be desirable for the default amount to be set at \$2. The \$2 amount is merely illustrative. Any suitable amount may be selected as a default.

Moreover, no default amount need be selected.

20

If the user desires to change the default amount to another amount, the user may select one of the other wager amount options 110.

Option 112 may be provided to allow the user 15 to return to horse selection screen 90.

When the user is ready to place the wager, the user may select bet queue option 114.

When the user selects bet queue option 114, the interactive wagering application may present a screen such as wager list screen 116 of FIG. 8. Screen 116 may contain information 118 on the selected track for the wager, information 120 on the selected race number for the wager, and information 122 on the selected wager amount for the wager. Information 124 may also be included on the selected wager type for the wager. Information 126 may be presented on which horses have been selected for the wager. If the race involves runners other than horses (e.g., dogs, etc.), the numbers for those runners may be presented instead 30 of horse numbers.

- 40 -

Information 128 on the cost of each wager may be presented in a column. The total cost 130 of all of the wagers added together may also be presented.

Option 131 may be provided to allow the user to delete selected wagers from the list of screen 116. Duplicate option 132 may allow the user to duplicate a wager.

The interactive wagering application may support multiple users. For example, multiple users in a home with individual wireless user devices 148 may access the interactive wagering application through common in-home user equipment 142 (FIG. 2) or multiple users may share a common wireless user device 144 (FIG. 2). Personal identification numbers (PINs) may be created for each user. When the user enters a PIN when signing into the system, the interactive wagering application may look up the user's name and may display the user's name in region 134.

Amount option 136 may be used to return wager 20 amount screen 102 of FIG. 7.

When the user is satisfied with the wagers listed in screen 116, the user may select send in saved wagers option 138. This submits the wagers from the user's device (e.g., from wireless user equipment 144 of FIG. 2 or from wireless user device 148 through inhome user equipment 146 of FIG. 2, etc.) to transaction processing and subscription management system 24 (FIGS 1 and 2). Transaction processing and subscription management system 24 may then process the wager and credit or debit the user's account according to the results of the race.

- 41 -

Illustrative steps involved in using user equipment such as wireless user equipment 144 of FIG. 2 and user equipment 142 of FIG. 2 are shown in FIG. 9. After the interactive wagering application has been launched (either automatically when the user views certain content or the like or manually when the user selects a particular on-screen option or presses a particular button), a wireless communications link may be established (or may be maintained if already established) between the wireless user device 148 and in-home user equipment 146 or between wireless user equipment 144 and communications network 140.

10

15

20

30

At step 152, the interactive wagering application may provide the user with an opportunity to create a wager. For example, the interactive wagering application may present screens such as the screens of FIGS. 3-8 to provide the user with on-screen options that allow the user to select a desired racetrack for a wager, select a desired race, select a wager type, select a wager amount, and select one or more horses for the wager. The interactive wagering application may also present options to the user that allow the user to view race results for previously run races, to view handicapping information (e.g., information on 25 past performances, information on jockeys, trainers, and owners, etc.), view account information, etc. The race results may include videos provided from video production system 14 or other suitable source. desired, real-time race videos may be provided.

At step 154, after the user has created a wager, the interactive wagering application may provide the user with an opportunity to wirelessly submit the

- 42 -

wager. If the user is located at wireless user device 148 of FIG. 2, the wager may be wirelessly transmitted from wireless user device 148 to in-home user equipment 146 over wireless communications path 44r and subsequently provided to transaction processing and subscription management system 24 over the path 44p connected to in-home user equipment 146, communications network 140, and the communications path 44p connected to transaction processing and subscription management system 24. If the user is located at wireless user 10 equipment 144 of FIG. 2, the wager may be wirelessly transmitted from wireless user equipment 144 to communications network 140 over wireless communications path 44q and subsequently provided to transaction processing and subscription management system 24 over the path 44p connected to transaction processing and subscription management system 24.

At step 156, the interactive wagering application may use transaction processing and subscription management system 24 to process the user's wager. If the user desires to place another wager, the user may select appropriate options in the interactive wagering application that take the user back to step 152 as shown by path 158. If the user is finished using the interactive wagering application, the user may select an appropriate exit option to exit the application.

20

25

Sometimes more than one individual may desire to wager with the user equipment at the same time.

30 Multiple users of equipment such as wireless user equipment 144 may share equipment 144 by using individual passwords. This approach may also be used

- 43 **-**

by individuals for sharing equipment such as wireless user device 148 of user equipment 142.

If desired, equipment such as equipment 142
may include multiple wireless user devices 148, each of
which may be used by a different user. Each user may
provide a wireless user device 148 with a user ID and
password or other suitable identifying information
(e.g., a personal identification number (PIN)). The
interactive wagering application may then provide each
user with an independent link over which each
individual user may obtain information and interact
with the system. This allows multiple users to share a
single simulcast broadcast that is displayed, for
example, on in-home user equipment 146 (e.g., on a

television or computer monitor), while allowing each
user to create and submit wagers independently of each
other.

equipment 142 to support multiple users are shown in
FIG. 10. At step 160, the interactive wagering
application may be used to provide multiple users with
opportunities to wirelessly provide information on
their identities using wireless user device 148. For
example, each user may be allowed to enter a user ID
and password or a PIN or other identifier or identity
information. These are merely illustrative examples.
Any suitable user-specific personal information may be
used to identify the users if desired.

At step 162, the interactive wagering

30 application may use the identity information to verify
the identity of each user and to determine whether each
user is permitted to place wagers (e.g., each user has

- 44 -

a positive account balance and is a registered user, etc.).

At step 164, each user may be provided with an opportunity to create a wager or to otherwise 5 interact with the interactive wagering application. For example, wager creation screens may be provided on the displays of wireless user devices 148 that the users may interact with to create wagers. When a given user has entered information specifying a track, race, wager type, wager amount, and horse for a wager, the 10 user may be provided with an on-screen submit option on the display of the user's wireless user device 148. The user may select the submit option to wirelessly transmit the wager to in-home user equipment 142. In-15 home user equipment 142 may complete the wager submission process by providing the wager to transaction processing and subscription management system 24 over communications network 140 for processing. Each user at one of the wireless user 20 devices 148 may also individually access information from the interactive wagering application. example, users may independently access account information and racing data such as race results, wager results, handicapping information, etc.

25 The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.

- 45 -

What Is Claimed is:

1. A method for submitting electronic wagers on races that are to be run to computer equipment over a communications network using an interactive wagering application that is implemented using in-home user equipment and at least one wireless portable computing device with a display that is in wireless communications with the in-home user equipment, comprising:

providing a user at the wireless portable computing device with on-screen options on the display of the wireless portable computing device that allow the user to create a wager for a given race to be run; and

allowing the user to wirelessly transmit the wager from the wireless portable computing device to the in-home user equipment over a wireless communications path when it is desired to submit the wager for processing; and

transmitting the wager from the in-home user equipment to the computer equipment over the communications network for processing.

- 2. The method defined in claim 1 wherein the race is a horse race, the method further comprising allowing the user to use the wireless portable computing device to select a horse for the wager.
- 3. The method defined in claim 1 further comprising providing the user with an opportunity to use the wireless portable computing device to select a racetrack for the wager.

- 46 -

- 4. The method defined in claim 1 further comprising providing the user with an opportunity to use the wireless portable computing device to select a race for the wager.
- 5. The method defined in claim 1 further comprising providing the user with an opportunity to use the wireless portable computing device to select a wager type for the wager.
- 6. The method defined in claim 1 further comprising providing the user with an opportunity to use the wireless portable computing device to select a wager amount for the wager.
- 7. The method defined in claim 1, wherein the computer equipment is part of a transaction processing and subscription management system, the method further comprising processing the wager with the transaction processing and subscription management system once the wager has been placed.
- 8. The method defined in claim 1, wherein the race is a horse race and wherein an account is maintained for the user at a transaction processing and subscription management system, the method further comprising processing the wager once the wager has been placed and crediting the account when the wager is successful.

- 47 -

9. The method defined in claim 1, wherein the in-home user equipment includes user television equipment.

- 10. The method defined in claim 1, wherein the in-home user equipment includes a set-top box and wherein transmitting the wager from the in-home user equipment to the computer equipment over the communications network for processing comprises transmitting the wager from the set-top box to the computer equipment over the communications network for processing.
- 11. The method defined in claim 1, wherein the in-home user equipment includes user computer equipment.
- 12. The method defined in claim 1, wherein the in-home user equipment includes a personal computer and wherein transmitting the wager from the in-home user equipment to the computer equipment over the communications network for processing comprises transmitting the wager from the personal computer to the computer equipment over the communications network for processing.
- 13. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer, the method further comprising using the handheld computer to wirelessly receive handicapping information from the in-home user equipment.

- 48 -

- 14. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer and the in-home user equipment is a set-top box, the method further comprising using the handheld computer to wirelessly receive handicapping information from the set-top box.
- 15. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer and the in-home computing device is a personal computer, the method further comprising using the handheld computer to wirelessly receive handicapping information from the personal computer.
- 16. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer, the method further comprising using the handheld computer to wirelessly receive race results from the in-home user equipment.
- 17. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer and the in-home user equipment is a set-top box, the method further comprising using the handheld computer to wirelessly receive race results from the set-top box.
- 18. The method defined in claim 1, wherein the wireless portable computing device is a handheld computer and the in-home computing device is a personal computer, the method further comprising using the

- 49 -

handheld computer to wirelessly receive race results from the personal computer.

- 19. The method defined in claim 1, wherein the wireless portable computing device is an electronic book, the method further comprising using the electronic book to wirelessly receive handicapping information from the in-home user equipment.
- 20. The method defined in claim 1, wherein the wireless portable computing device is an electronic book and the in-home user equipment is a set-top box, the method further comprising using the electronic book to wirelessly receive handicapping information from the set-top box.
- 21. The method defined in claim 1, wherein the wireless portable computing device is an electronic book and the in-home computing device is a personal computer, the method further comprising using the electronic book to wirelessly receive handicapping information from the personal computer.
- 22. The method defined in claim 1, wherein the wireless portable computing device is an electronic book, the method further comprising using the electronic book to wirelessly receive racing results from the in-home user equipment.
- 23. The method defined in claim 1, wherein the wireless portable computing device is an electronic book and the in-home user equipment is a set-top box,

- 50 -

the method further comprising using the electronic book to wirelessly receive racing results from the set-top box.

- 24. The method defined in claim 1, wherein the wireless portable computing device is an electronic book and the in-home computing device is a personal computer, the method further comprising using the electronic book to wirelessly receive racing results from the personal computer.
- 25. The method defined in claim 1, wherein the wireless portable computing device is a web tablet, the method further comprising using the web tablet to wirelessly receive handicapping information from the in-home user equipment.
- 26. The method defined in claim 1, wherein the wireless portable computing device is a web tablet and the in-home user equipment is a set-top box, the method further comprising using the web tablet to wirelessly receive handicapping information from the set-top box.
- 27. The method defined in claim 1, wherein the wireless portable computing device is a web tablet and the in-home computing device is a personal computer, the method further comprising using the web tablet to wirelessly receive handicapping information from the personal computer.

- 51 -

- 28. The method defined in claim 1, wherein the wireless portable computing device is a web tablet, the method further comprising using the web tablet to wirelessly receive racing results from the in-home user equipment.
- 29. The method defined in claim 1, wherein the wireless portable computing device is a web tablet and the in-home user equipment is a set-top box, the method further comprising using the web tablet to wirelessly receive racing results from the set-top box.
- 30. The method defined in claim 1, wherein the wireless portable computing device is a web tablet and the in-home computing device is a personal computer, the method further comprising using the web tablet to wirelessly receive racing results from the personal computer.
- 31. The method defined in claim 1 further comprising allowing multiple users to access the interactive wagering application using a plurality of the wireless portable computing devices.
- 32. The method defined in claim 1, wherein the in-home user equipment communicates wirelessly with a plurality of wireless portable computing devices, the method comprising allowing multiple users at the plurality of wireless portable computing devices to each use a respective one of the plurality of wireless portable computing devices to place an independent wager through the in-home user equipment.

- 52 -

- 33. The method defined in claim 1, wherein the in-home user equipment is a set-top box that communicates wirelessly with a plurality of wireless portable computing devices, the method comprising allowing multiple users at the plurality of wireless portable computing devices to each place an independent wager through the set-top box.
- 34. The method defined in claim 1, wherein the in-home user equipment is a personal computer that communicates wirelessly with a plurality of wireless portable computing devices, the method comprising allowing multiple users at the plurality of wireless portable computing devices to each place an independent wager through the personal computer.
- 35. The method defined in claim 1, wherein the in-home user equipment communicates wirelessly with a plurality of handheld computers, the method comprising allowing multiple users at the plurality of handheld computers to each place an independent wager through the in-home user equipment.
- 36. The method defined in claim 1, wherein the in-home user equipment is a set-top box that communicates wirelessly with a plurality of handheld computers, the method comprising allowing multiple users at the handheld computers to each place an independent wager through the set-top box.
- 37. The method defined in claim 1, wherein the in-home user equipment is a personal computer that

- 53 -

communicates wirelessly with a plurality of handheld computers, the method comprising allowing multiple users at the plurality of handheld computers to each place an independent wager through the personal computer.

- 38. The method defined in claim 1, wherein the in-home user equipment communicates wirelessly with a plurality of web tablets, the method comprising allowing multiple users at the plurality of web tablets to each place an independent wager through the in-home user equipment.
- 39. The method defined in claim 1, wherein the in-home user equipment is a set-top box that communicates wirelessly with a plurality of web tablets, the method comprising allowing multiple users at the plurality of web tablets to each place an independent wager through the set-top box.
- 40. The method defined in claim 1, wherein the in-home user equipment is a personal computer that communicates wirelessly with a plurality of web tablets, the method comprising allowing multiple users at the plurality of web tablets to each place an independent wager through the personal computer.
- 41. The method defined in claim 1, wherein the in-home user equipment communicates wirelessly with a plurality of electronic books, the method comprising allowing multiple users at the plurality of electronic

- 54 -

books to each place an independent wager through the in-home user equipment.

- 42. The method defined in claim 1, wherein the in-home user equipment is a set-top box that communicates wirelessly with a plurality of electronic books, the method comprising allowing multiple users at the plurality of electronic books to each place an independent wager through the set-top box.
- 43. The method defined in claim 1, wherein the in-home user equipment is a personal computer that communicates wirelessly with a plurality of electronic books, the method comprising allowing multiple users at the plurality of electronic books to each place an independent wager through the personal computer.
- 44. An interactive wagering system that provides a user with an opportunity to submit electronic wagers on races that are to be run to computer equipment over a communications network using an interactive wagering application, comprising:

in-home user equipment; and
at least one wireless portable computing
device with a display that is in wireless communication
with the in-home user equipment, wherein the in-home
user equipment and the wireless portable computing

provide the user with on-screen options on the display of the wireless portable computing device that allow the user to create a wager for a given race to be run; and

device are configured to:

- 55 -

allow the user to wirelessly transmit the wager from the wireless portable computing device to the in-home user equipment over a wireless communications path when it is desired to submit the wager for processing; and

transmit the wager from the in-home user equipment to the computer equipment over the communications network for processing.

- 45. The system defined in claim 44 wherein the race is a horse race and wherein the in-home user equipment and the wireless portable computing device are further configured to allow the user to use the wireless portable computing device to select a horse for the wager.
- 46. The system defined in claim 44 wherein the in-home user equipment and the wireless portable computing device are further configured to provide the user with an opportunity to use the wireless portable computing device to select a racetrack for the wager.
- 47. The system defined in claim 44 wherein the in-home user equipment and the wireless portable computing device are further configured to provide the user with an opportunity to use the wireless portable computing device to select a race for the wager.
- 48. The system defined in claim 44 wherein the in-home user equipment and the wireless portable computing device are further configured to provide the

- 56 -

PCT/US01/06381

WO 01/64305

user with an opportunity to use the wireless portable computing device to select a wager type for the wager.

- 49. The system defined in claim 44 wherein the in-home user equipment and the wireless portable computing device are further configured to provide the user with an opportunity to use the wireless portable computing device to select a wager amount for the wager.
- 50. The system defined in claim 44 wherein the computer equipment is part of a transaction processing and subscription management system and wherein the transaction processing and subscription management system is configured to process the wager once the wager has been placed.
- 51. The system defined in claim 44, wherein the race is a horse race and wherein an account is maintained for the user at a transaction processing and subscription management system and wherein the transaction processing and subscription management system is configured to process the wager once the wager has been placed and is configured to credit the account when the wager is successful.
- 52. The system defined in claim 44 wherein the in-home user equipment includes user television equipment.
- 53. The system defined in claim 44 wherein the in-home user equipment includes a set-top box

- 57 -

configured to transmit the wager to the computer equipment over the communications network for processing.

- 54. The system defined in claim 44, wherein the in-home user equipment includes user computer equipment.
- 55. The system defined in claim 44, wherein the in-home user equipment includes a personal computer that is configured to transmit the wager to the computer equipment over the communications network for processing.
- 56. The system defined in claim 44, wherein the wireless portable computing device is a handheld computer configured to wirelessly receive handicapping information from the in-home user equipment.
- 57. The system defined in claim 44, wherein the in-home user equipment is a set-top box and the wireless portable computing device is a handheld computer configured to wirelessly receive handicapping information from the set-top box.
- 58. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is a handheld computer configured to wirelessly receive handicapping information from the personal computer.

- 58 -

- 59. The system defined in claim 44, wherein the wireless portable computing device is a handheld computer configured to wirelessly receive race results from the in-home user equipment.
- 60. The system defined in claim 44, wherein the in-home user equipment is a set-top box and the wireless portable computing device is a handheld computer configured to wirelessly receive race results from the set-top box.
- 61. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is a handheld computer configured to wirelessly receive race results from the personal computer.
- 62. The system defined in claim 44, wherein the wireless portable computing device is an electronic book configured to wirelessly receive handicapping information from the in-home user equipment.
- 63. The system defined in claim 44, wherein the in-home user equipment is a set-top box and the wireless portable computing device is an electronic book configured to wirelessly receive handicapping information from the set-top box.
- 64. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is an electronic

- 59 -

book configured to wirelessly receive handicapping information from the personal computer.

- 65. The system defined in claim 44, wherein the wireless portable computing device is an electronic book configured to wirelessly receive racing results from the in-home user equipment.
- 66. The system defined in claim 44, wherein the in-home user equipment is a set-top box and the wireless portable computing device is an electronic book configured to wirelessly receive racing results from the set-top box.
- 67. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is an electronic book configured to wirelessly receive racing results from the personal computer.
- 68. The system defined in claim 44, wherein the wireless portable computing device is a web tablet configured to wirelessly receive handicapping information from the in-home user equipment.
- 69. The system defined in claim 44, wherein the in-home user equipment is a set-top box and the wireless portable computing device is a web tablet configured to wirelessly receive handicapping information from the set-top box.

- 60 -

- 70. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is a web tablet configured to wirelessly receive handicapping information from the personal computer.
- 71. The system defined in claim 44, wherein the wireless portable computing device is a web tablet configured to receive racing results from the in-home user equipment.
- 72. The system defined in claim 44, wherein the in-home equipment is a set-top box and the wireless portable computing device is a web tablet configured to wirelessly receive racing results from the set-top box.
- 73. The system defined in claim 44, wherein the in-home user equipment is a personal computer and the wireless portable computing device is a web tablet configured to wirelessly receive racing results from the personal computer.
- 74. The system defined in claim 44 further comprising a plurality of the wireless portable computing devices that are configured to allow multiple users to access the interactive wagering application.
- 75. The system defined in claim 44 further comprising a plurality of wireless portable devices with which the in-home user equipment communicates wirelessly, wherein the plurality of wireless portable computing devices are configured to allow multiple

- 61 -

users to each use a respective one of the portable computing devices to place an independent wager through the in-home user equipment.

- 76. The system defined in claim 44 further comprising a plurality of wireless portable computing devices, wherein the in-home user equipment is a settop box that communicates wirelessly with the plurality of wireless portable computing devices and wherein the plurality of wireless portable computing devices are configured to allow multiple users to each place an independent wager through the set-top box.
- 77. The system defined in claim 44 further comprising a plurality of wireless portable computing devices, wherein the in-home user equipment is a personal computer that communicates wirelessly with the plurality of wireless portable computing devices and wherein the plurality of wireless portable computing devices are configured to allow multiple users to each place an independent wager through the personal computer.
- 78. The system defined in claim 44 further comprising a plurality of handheld computers with which the in-home user equipment communicates wirelessly, wherein the plurality of handheld computers are configured to allow multiple users at the plurality of handheld computers to each place an independent wager through the in-home user equipment.

- 62 -

- 79. The system defined in claim 44 further comprising a plurality of handheld computers, wherein the in-home user equipment is a set-top box that communicates wirelessly with the plurality of handheld computers and wherein the plurality of handheld computers are configured to allow multiple users at the handheld computers to each place an independent wager through the set-top box.
- 80. The system defined in claim 44 further comprising a plurality of handheld computers, wherein the in-home user equipment is a personal computer that communicates wirelessly with the plurality of handheld computers and wherein the plurality of handheld computers are configured to allow multiple users to each place an independent wager through the personal computer.
- 81. The system defined in claim 44 further comprising a plurality of web tablets, wherein the inhome user equipment communicates wirelessly with the plurality of web tablets and wherein the plurality of web tablets are configured to allow multiple users to each place an independent wager through the in-home user equipment.
- 82. The system defined in claim 44 further comprising a plurality of web tablets, wherein the inhome user equipment is a set-top box that communicates wirelessly with the plurality of web tablets and wherein the plurality of web tablets are configured to

WO 01/64305

allow multiple users to each place an independent wager through the set-top box.

- 63 -

PCT/US01/06381

- 83. The system defined in claim 44 further comprising a plurality of web tablets, wherein the inhome user equipment is a personal computer that communicates wirelessly with the plurality of web tablets and wherein the plurality of web tablets are configured to allow multiple users to each place an independent wager through the personal computer.
- 84. The system defined in claim 44 further comprising a plurality of electronic books, wherein the in-home user equipment communicates wirelessly with the plurality of electronic books and wherein the electronic books are configured to allow multiple users to each place an independent wager through the in-home user equipment.
- 85. The system defined in claim 44 further comprising a plurality of electronic books, wherein the in-home user equipment is a set-top box that communicates wirelessly with the plurality of electronic books and wherein the plurality of electronic books are configured to allow multiple users to each place an independent wager through the set-top box.
- 86. The system defined in claim 44 further comprising a plurality of electronic books, wherein the in-home user equipment is a personal computer that communicates wirelessly with the plurality of

- 64 -

electronic books and wherein the plurality of electronic books are configured to allow multiple users to each place an independent wager through the personal computer.

87. A method for using wireless application protocol (WAP) communications to wirelessly submit electronic wagers on races that are to be run to computer equipment using an interactive wagering application that is implemented using wireless user equipment with a display, comprising:

providing a user at the wireless user equipment with on-screen options on the display of the wireless user equipment that allow the user to create a wager for a given race to be run;

allowing the user to wirelessly transmit the wager from the wireless user equipment to a communications network over a wireless communications path using the wireless application protocol (WAP) when it is desired to submit the wager for processing; and

receiving the wager at the computer equipment over the communications network for processing.

88. An interactive wagering system that provides a user with an opportunity to use wireless application protocol (WAP) communications to wirelessly submit electronic wagers on races that are to be run using an interactive wagering application, comprising:

wireless user equipment having a display, wherein the wireless user equipment is configured to provide the user with on-screen options

- 65 -

on the display that allow the user to create a wager for a given race to be run; and

computer equipment to which the wagers are submitted over a communications network, wherein the wireless user equipment is configured to allow the user to wirelessly transmit the wager from the wireless user equipment to the communications network over a wireless communications path using the wireless application protocol (WAP) when it is desired to submit the wager for processing and wherein the computer equipment receives the wager over the communications network for processing.

89. A method for wirelessly submitting electronic wagers on races that are to be run to computer equipment using an interactive wagering application that is implemented using wireless user equipment with a display, comprising:

providing a user at the wireless user equipment with on-screen options on the display of the wireless user equipment that allow the user to create a wager for a given race to be run;

allowing the user to transmit the wager from the wireless user equipment to a communications network via communications equipment at a racetrack that communicates wirelessly with the wireless user equipment when it is desired to submit the wager for processing; and

receiving the wager at the computer equipment from the communications equipment at the racetrack over the communications network for processing.

- 66 -

90. An interactive wagering system that provides a user with an opportunity to wirelessly submit electronic wagers on races that are to be run using an interactive wagering application, comprising:

wireless user equipment having a display, wherein the wireless user equipment is configured to provide the user with on-screen options on the display that allow the user to create a wager for a given race to be run;

computer equipment to which the wagers are submitted over a communications network; and

wireless communications equipment at a track with which the wireless user equipment wirelessly communicates, wherein the wireless user equipment and wireless communications equipment are configured to allow the user to transmit the wager from the wireless user equipment to the communications network via the wireless communications equipment when it is desired to submit the wager for processing and wherein the computer equipment receives the wager over the communications network for processing.

1/10

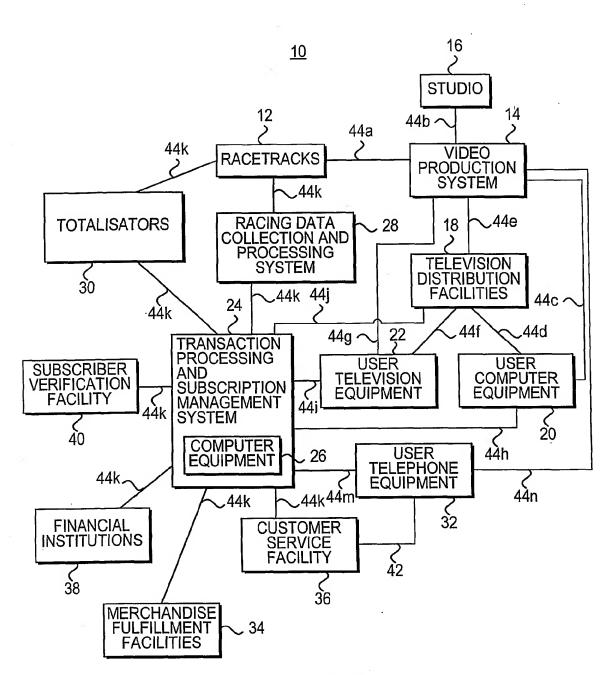


FIG. 1

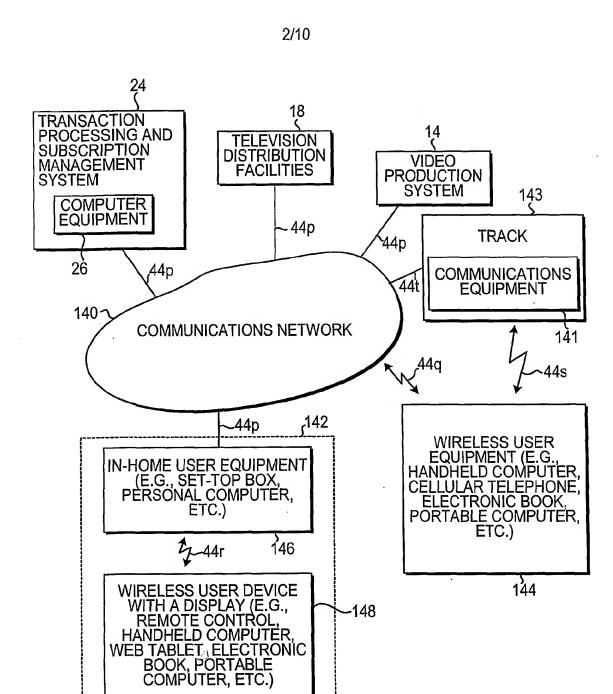


FIG. 2

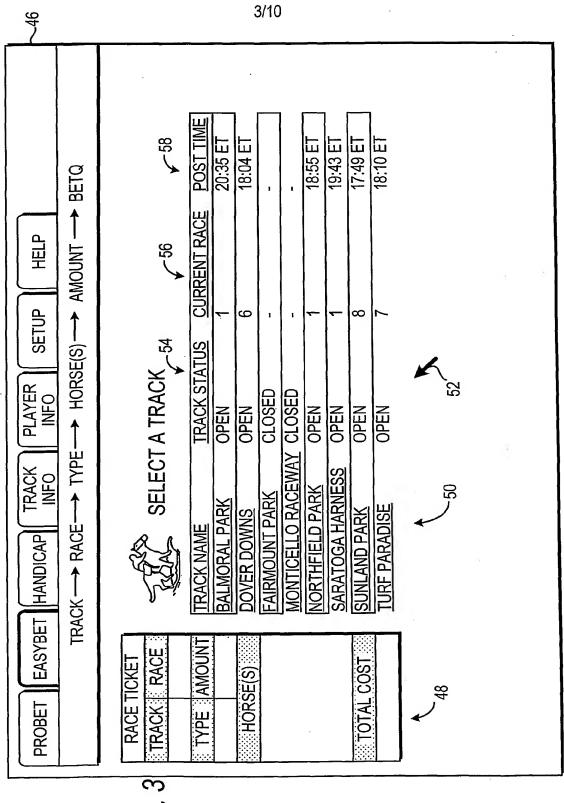
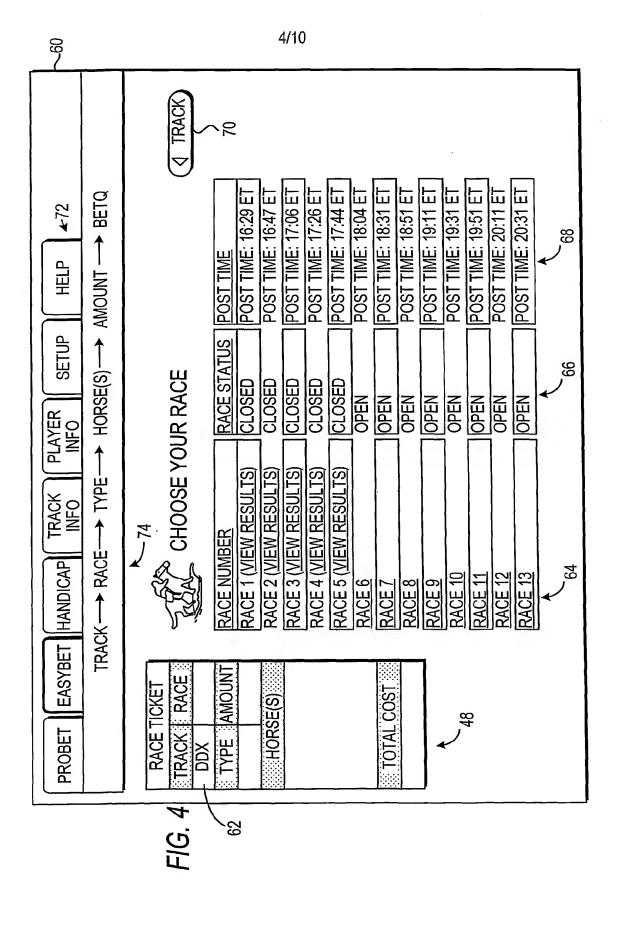
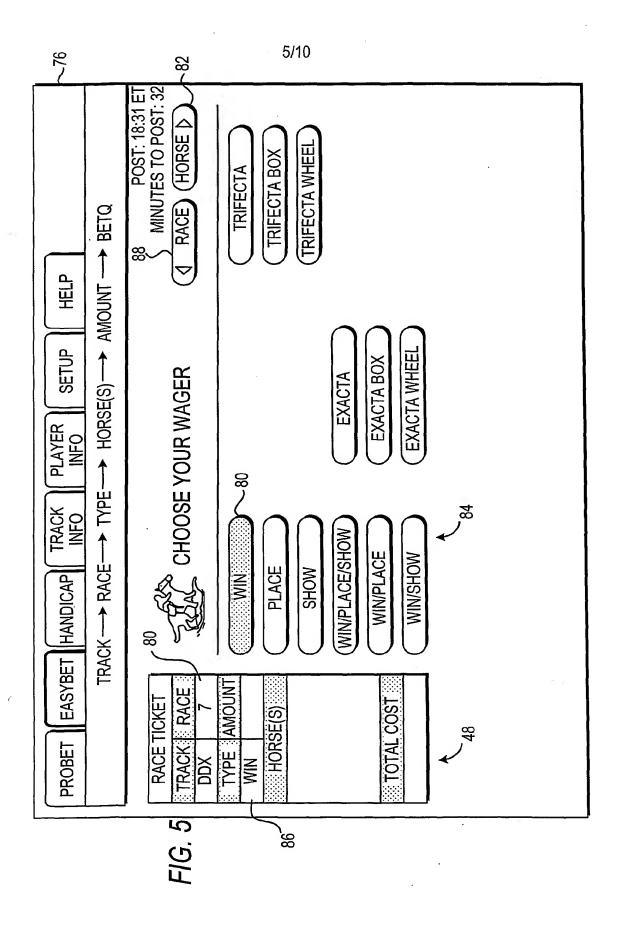
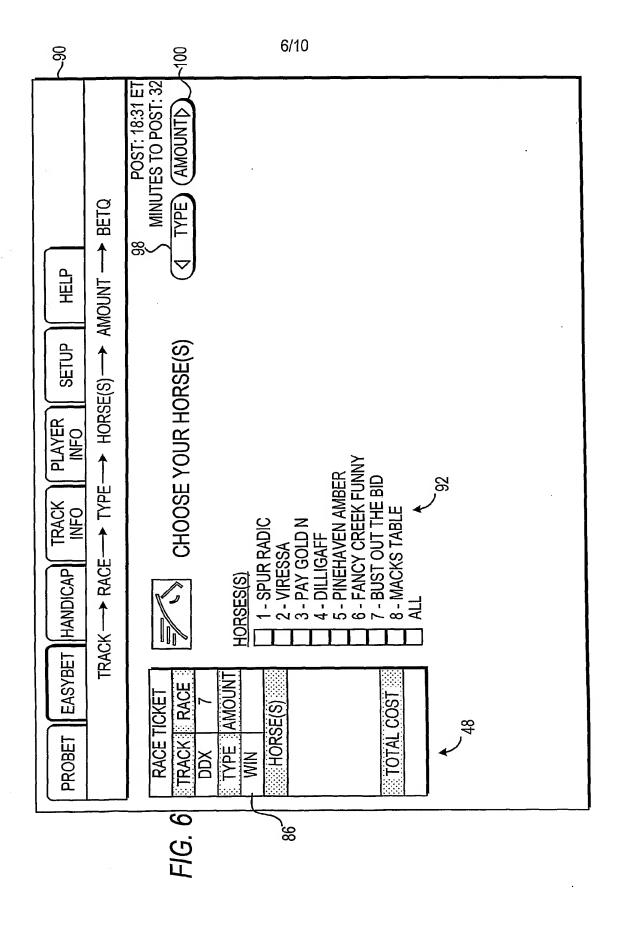
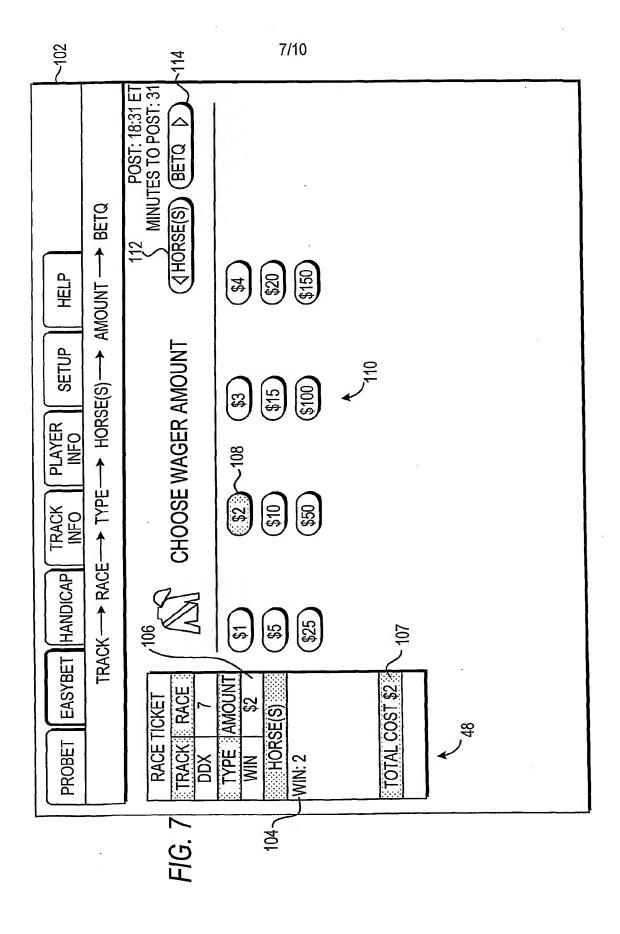


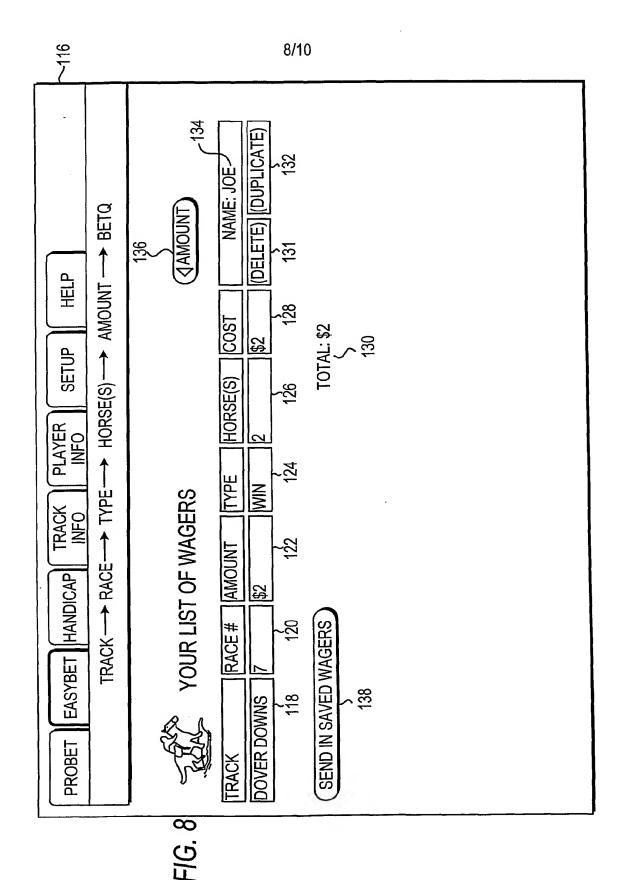
FIG. 3











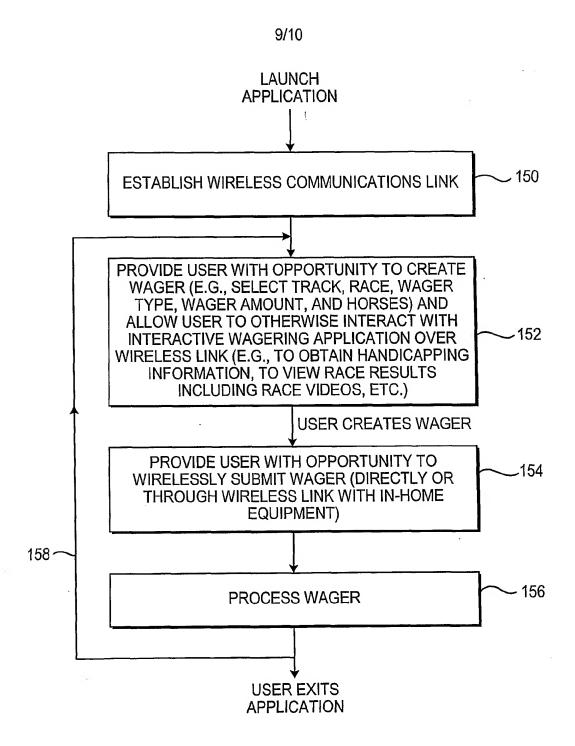


FIG. 9

10/10

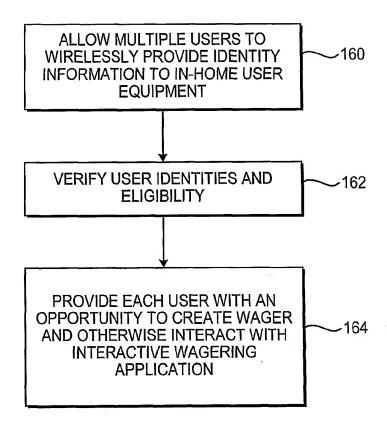


FIG. 10